

## ABSTRACT OF THE DISCLOSURE

The invention provides methods for regulating cell-mediated immune responses, immune system diseases and allograft transplant rejection by interfering with the interaction of at least three different cell surface molecules with their natural ligands. A first cellular interaction is mediated by CD28/B7/CTLA4, a second interaction is mediated by CD40/CD154, and a third interaction is mediated by LFA-1 interaction with its ligands. Regulation of a cell-mediated immune response affects immune system diseases such as those associated with allograft transplantation.